Lecture and introduction

Children with developmental disabilities: What does the brain need to learn? To bring order to chaos?

The Feldenkrais and Anat Baniel Method for supporting parents and their children with developmental difficulties and disabilities. Learn some principles that will support your child's movement learning in everyday life.

For many years, I focused on learning and refining movement. With a professional background in contemporary dance and extensive experience in Aikido, I stood out from my fellow dancers. Unlike many children who start dancing because of their extraordinary talent at an early age, I began attending movement classes to improve my poor gross motor coordination.

Over the years, my interest shifted from executing fancy dance skills to understanding how people learn. This path eventually led me to my current work, using movement to actively support the brain's learning through the Feldenkrais Method.

In 2017, a child with severe Cerebral Palsy was brought into my practice by their parents. Working with this child became a guide for me, and I decided to take an Advanced Training Course specifically for working with children with disabilities. During this training, led by Nancy Aberle and Lynn Bullock, I was introduced to theories and techniques from the Anat Baniel Method, NeuroMovement®.

Anat Baniel trained under Moshé Feldenkrais and is highly proficient in working with children, using simple language to describe the most important aspects of our work. She is also up-to-date with the latest findings in neuroscience, a scientific field that has undergone significant changes since Moshé Feldenkrais passed away in 1984.

Time to raise a question:

How do we do something that we cannot do? How can we achieve something that currently seems impossible?

Is this a strange question?

Not that strange, because it is often asked in therapy. The child is asked to do something he or she cannot do at the moment.

Another question: How do we sit, if we don’t know how to get there?

As I'm standing at the moment - how can I sit down if I don't know how to bend my legs, how to lean forward a little and how to lower my pelvis to reach a chair?

This may sound strange, but children are often asked to do things they can't yet. Infants and children are made to sit or stand, even if they have no balance, cannot hold their head up and do not know how to use their legs to stand.

If we consider the child's perspective and focus on learning, what will a child learn if they are brought into such a situation? If they are made to sit but are leaning forward or to one side, with their head hanging down? Or if they're made to stand or hang on to the support they're given by their parents or an aid?

- The child might learn that he/she is stupid or lazy?
- That his will to do something is not big enough?
- That learning is painful?
- That any attempt to perform a movement increases spasticity?
- That it's scary to be in a situation like that, when he/she doesn't know how to get there or how to get out of it?

I can assure you that no infant is lazy. If they could, they would grab that toy or crawl or….

As practitioners of the Feldenkrais and Anat Baniel methods, we begin by working with the child's current abilities. We avoid asking them to do anything beyond their current capabilities.

We support them to become more comfortable with themselves and what they can already do. We assist individuals in feeling comfortable and confident in their abilities, expanding their range of possibilities. This enables them to transfer their skills to different situations. We assist children in feeling their body parts, allowing the brain to distinguish between each arm, leg, the spine, and pelvis, as well as the front, the back… and so on.

Today we know that our brains are shaped by what we do and experience. Every action and thought leaves a trace in our brain, and we have the ability to change its structure throughout our lives. Neuroplasticity is the term used to describe this phenomenon. The structure of the brain can change significantly. If there is brain damage or certain pathways are unavailable from birth or for any other reason, other parts of the brain can take over.

Although one part of the brain is typically responsible for leg movement, we can still learn to use our legs because another part of the brain might learn to do this task.

The brain and movement have a close relationship because the brain evolved to control movement, not to think or feel. We have brains to produce adaptive and complex movements because that is the only way we can interact with the world around us. (Daniel Wolpert, TedTalk).

Here's some good news: this movement thing works both ways!

Which means that the brain controls movement and we can use movement to influence the brain. This tool supports the organization within the brain and has an impact on various levels, including thinking and feeling.

You may think that movement is part of your life and your child's life anyway. But so far, no miracles have happened.

Yes. Because some rules need to be followed to enhance the learning process, to bring order into disorder, to help your child make sense of the world we live in and to create meaningful interactions.

Anat Baniel defined Nine Essentials as a simple guideline to enhance your child's learning, as well as your own. These essentials can also help you overcome pain and increase your flexibility, strength, creativity, and vitality.

You are here today. We have successfully stimulated your curiosity.

Curiosity is a driving force for learning. It helps to focus your attention on something specific and turn on your learning switch, putting you in a state where you are alert and receptive.

Turning on the learning switch is one of Anat Baniel's Nine Essentials. Here are some others:

- **Movement with attention**
  This essential is crucial for meaningful changes to occur in the brain. It is necessary to break habitual patterns and create new neural pathways.
  This is a major difference to habitual movement in daily live which only reinforces existing pathways.

- **Slow**
  Quick, you can only do what you can already do. In order to have enough time for feedback while performing a movement, you need to slow down. This allows the brain enough time to compare the output with the initial intention and make any necessary adaptations.

- **Variation**
  We often believe that there is only one correct way to do something. However, consider a basketball player who has multiple options for shooting a basket, including different distances, angles, and speeds. The more variations the player has at their disposal, the greater their chance of success in a match.
  This same principle applies to a child learning to sit. If the child has several ways of coming to sit, rather than just one, it will become easier and more enjoyable to come to sit. Having variations takes the pressure off and increases the likelihood of getting what you want.

- **Subtlety**
  It's the same principle as with quick or slow. Using too much force can limit your ability to feel what is happening inside yourself and make it difficult to adjust if necessary. By reducing the force, you can better recognize subtle differences and make necessary adjustments.

- **Flexible Goals**
  You want your child to learn how to sit, crawl, walk, and speak. And you may have a very clear idea of the order in which this should happen. However, it's important to stay open-minded as your child may need to learn something else first. Consider it as another variation that will enrich your child's experience.

Now, let's apply these principles to movement. Instead of just discussing them, I will guide you through some experiments. We can revisit these essentials later and determine which ones we utilized.

Next we do some guided movement explorations in a sitting position.

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